

We claim:

1. An oral dosage form with delayed release of active ingredient
5 and high mechanical stability, comprising
 - a) one or more active ingredients
 - b) a formulated mixture of polyvinyl acetate and
10 polyvinylpyrrolidone
 - c) water-soluble polymers or low or high molecular weight lipophilic additives
 - 15 d) and other conventional excipients.
2. An oral dosage form as claimed in claim 1, wherein the ratio
of polyvinyl acetate to polyvinylpyrrolidone is from 6:4 to
20 9:1.
3. An oral dosage form as claimed in either of claims 1 or 2,
wherein a formulated mixture of polyvinyl acetate and
polyvinylpyrrolidone in the ratio 8:2 is employed.
- 25 4. An oral dosage form as claimed in any of claims 1 to 3, which
is a tablet, extrudate, pellet or granulate.
5. An oral dosage form as claimed in any of claims 1 to 4,
wherein a water-soluble or water-insoluble release-delaying
30 coating is applied to the oral dosage form.
6. An oral dosage form as claimed in any of claims 1 to 5,
wherein the water-soluble or lipophilic polymers are selected
from the group of: polyvinyl alcohols, polyethylene glycols,
35 polyoxyethylene/polyoxypropylene block copolymers,
polyvinylpyrrolidones and derivatives, vinyl
acetate/vinylpyrrolidone copolymers, preferably polyethylene
glycols, polyvinylpyrrolidones, vinyl
acetate/vinylpyrrolidone copolymers or maltodextrins, and
40 salts thereof.
7. An oral dosage form as claimed in any of claims 1 to 6,
wherein the water-soluble swelling polymers are selected from
the group of: alginates, pectins, galactomannans,
45 carrageenans, dextran, curdlan, pullulan, gellan, chitin,
gelatin, xanthans, hemicelluloses, cellulose derivatives such
as methylcellulose, hydroxypropylmethylcellulose,

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- hydroxypropylcellulose, hydroxyethylcellulose,
methylhydroxyethylcellulose, carboxymethylcellulose, starch
derivatives such as carboxymethyl starch, degraded starch,
polyacrylic acid, polymethacrylic acid, acrylic
5 acid/methacrylic acid copolymers, and salts thereof.
8. An oral dosage form as claimed in any of claims 1 to 6,
wherein the lipophilic additives are selected from the group
of: cellulose derivatives such as ethylcellulose, cellulose
10 acetate, cellulose acetate phthalate, cellulose acetate
succinate, hydroxypropylmethylcellulose acetate phthalate,
hydroxypropylmethylcellulose acetate succinate, acrylic
ester/methacrylic ester copolymers, in particular methyl
methacrylate/ethyl acrylate copolymers, ammoniomethacrylate
15 copolymer type A and type B, methacrylic acid/acrylic ester
copolymers, in particular methacrylic acid/ethyl acrylate
copolymers, fatty alcohols such as stearyl alcohol, fatty
acids such as stearic acid, fatty acid esters and fatty
alcohol esters, glycerides, waxes, lecithin.
- 20 9. An oral dosage form as claimed in any of claims 1 to 7, which
is produced by direct compression, extrusion, melt extrusion,
pelleting, compaction, wet granulation.
- 25 10. An oral dosage form as claimed in any of claims 1 to 8,
wherein binders, extenders/fillers, disintegrants,
lubricants, flow regulators, dyes, stabilizers such as
antioxidants, wetting agents, preservatives, release agents,
flavorings and sweeteners are employed as conventional
30 excipients.
11. An oral dosage form as claimed in any of claims 1 to 9,
wherein the formulated mixture of polyvinyl acetate and
polyvinylpyrrolidone is present in a proportion of from 10 to
35 80% based on the total weight of the tablet.
12. An oral dosage form as claimed in any of claims 1 to 10,
wherein the water-soluble polymers and/or the lipophilic
additives are present in a proportion of from 1 to 40% based
40 on the total weight of the tablet.
13. An oral dosage form as claimed in any of claims 1 to 11,
wherein hydroxypropylmethylcelluloses are employed as
water-soluble polymers.
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14. An oral dosage form as claimed in any of claims 1 to 12,
wherein polyvinylpyrrolidones or vinyl
acetate/vinylpyrrolidone copolymers are employed as
water-soluble polymers.
- 5 15. An oral dosage form as claimed in any of claims 1 to 14,
which is a press-coated tablet whose core is rich in active
ingredient.
- 10 16. An oral dosage form as claimed in any of claims 1 to 15,
which comprises as active ingredients food supplements or
additives, vitamins, minerals or trace elements or active
pharmaceutical ingredients.
- 15 17. An oral dosage form as claimed in any of claims 1 to 16,
which comprises active pharmaceutical ingredients as active
ingredients.
- 20 18. A dosage form as claimed in any of claims 1 to 17, wherein
the active pharmaceutical ingredient is selected from the
group of benzodiazepines, antihypertensives, vitamins,
cytostatics, anesthetics, neuroleptics, antidepressants,
antibiotics, antimycotics, fungicides, chemotherapeutics,
urologicals, platelet aggregation inhibitors, sulfonamides,
25 spasmolytics, hormones, immunoglobulins, sera, thyroid
therapeutics, psychopharmaceuticals, antiparkinson agents and
other antihyperkinetics, ophthalmologicals, neuropathy
products, calcium metabolism regulators, muscle relaxants,
lipid-lowering agents, liver therapeutics, coronary agents,
30 cardiac agents, immunotherapeutics, regulatory peptides and
their inhibitors, hypnotics, sedatives, gynecologicals,
antigout agents, fibrinolytics, enzyme products and transport
proteins, enzyme inhibitors, emetics, perfusion promoters,
diuretics, diagnostics, corticoids, cholinergics, biliary
35 therapeutics, antiasthmatics, bronchospasmolytics,
beta-receptor blockers, calcium channel blockers, ACE
inhibitors, arteriosclerosis remedies, antiinflammatory
agents, anticoagulants, antihypotensives, antihypoglycemics,
antifibrinolytics, antiepileptics, antiemetics, antidotes,
40 antidiabetics, antiarrhythmics, antianemics, antiallergics,
anthelmintics, analgesics, analeptics, aldosterone
antagonists, weight-reducing agents.
19. A drug for delayed release of active ingredient, which is an
45 oral dosage form as claimed in any of claims 1 to 18.

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20. The use of the oral dosage forms as claimed in any of claims 1 to 17 for producing drugs with delayed release of active ingredient.

5 21. The use of the oral dosage forms as claimed in any of claims 1 to 17 for delayed release of active ingredients which are food supplements or additives, vitamins, minerals or trace elements.

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